

MEDICAL
PRINCIPLES
AND
CAUTIONS.

Founded on

J. L. C.

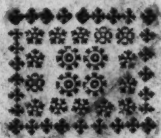
Clear, Strong, and Immutable REASONS.

PART II.

By THEOPHILUS LOBB, M. D.

*Member of the ROYAL COLLEGE of PHYSICIANS,
and Fellow of the ROYAL SOCIETY of LONDON.*

There is a GOD in Heaven that revealeth Secrets, Dan. ii. 28.



L O N D O N :

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M D C C L I I.

[Price One Shilling.]



Medical Principles

AND

CAUTIONS.

PART II.

THE INTRODUCTION.

Wherein some Things, contained in the former Part, are further explained, and the Truth, and Importance of them rendered more evident.

§. 194. **M**Y Design in publishing the Book intituled, *Medical Principles and Cautions*, was to give to medical Advisers (who never went through a Course of suitable Studies, and who have no Leisure, or Inclination for much Reading) such an Account of Diseases, and of the proper Means of curing them, and of the most general, and necessary Principles, and Cautions to be observed in the Use of *evacuating Remedies*, as might prevent a wrong Application

tion of them to the Prejudice of their Patients: Apprehending, that, by these Endeavours, I might be serviceable to them, and promote the Safety and Recovery of many People under Sickness, that shall apply to them for Advice.

§. 195. AND if all who act as Physicians could be prevailed with to forbear an *indiscriminate* Use of *Bleeding*, and *Purging*, and the other Evacuations; and would have a due Regard to the medical Principles and Cautions recommended to their Consideration, and would only advise them in Cases where there is some Excess in the Quantity of the animal Fluids, and then only so far, as they shall be wanted, it would, I think, be an effectual Means of saving Multitudes of more Lives, than the *Discovery of the Longitude* (if obtained) possibly could be: Because such a Reformation in the Practice of Physick, would prevent the Mischiefs that naturally follow frequent *Bleedings*, and *Purgings*, &c. in Diseases where the animal Fluids are too little in Quantity, and which only want *alterative* and *restorative* Remedies; and be equally beneficial to the Sick under such Distempers, whether at Sea, or on Land; where the Inhabitants are immensely more numerous than Seafaring People.

§. 196. THE Sections offered to the Consideration of the Public in the foregoing Part contain Matters of great Moment; and the *Remarks* upon them, by an ingenious Physician, published in the *Monthly Review* for
Decem-

December, 1751. have led me to a Re-examination of them.

§. 197. THE Notice he has taken of them, I hope, will excite many others to read, and examine my Account of Diseases and my medical Principles, &c. who (if they shall be convinced of their Truth) will, perhaps, become Advocates for them, to the great Benefit of Mankind.

§. 198. THIS Gentleman has laid a pleasing Obligation on me, as thereby he has given me an Occasion to re-consider the Passages animadverted on; and to explain myself farther on some Points, and to remove the Objections, which otherwise might in some measure hinder the Usefulness of that Essay.

§. 199. IT is therefore with Pleasure, that I apply myself to consider the *Remarks* he has offered to the Consideration of his Readers. And as he distinctly takes Notice of the several Sections of my Book, I shall attend him in the same Order.

The Remarks on SECTION I. considered, p. 1.

§. 200. **H**ERE this Gentleman animadverts on my Opinion, *viz.* that the Things necessary to be known unto those who are preparing for the Practice of Physick, have not been explained, methodized, and digested in so clear and concise an Order as may be wished, and adds,

64 *Remarks on* SECT. I. *considered.* Part II.

Remark I. "His professed Purpose therefore is to contract, and to render them more intelligible." p. 498.

Reply 1. I must take the Liberty to say, that it was not my Purpose, in that Pamphlet, to deliver a System of the Things necessary to be known unto those who practise Physick, though I think that Instructions concerning them may be communicated more clearly, and with greater Brevity than they have hitherto been given to Students in Physick.

§. 201. Reply 2. IT is evident (from Part I. §. 2.) that I did not speak of all Things desirable to be known; but only of medical Knowledge, so far as is needful to enable a Man to form right Notions of Diseases, and of the Means proper for their Cure, and of the *Errors* to be avoided in Practice.

§. 202. Reply 3. AND as to my Account of the Causes of Diseases; ^a and of the Means proper for curing them; ^b and of the medical Principles, ^c and Cautions ^d to be observed in the Use of the evacuating Remedies; and as to my Account of Fevers, ^e and of curing them, and the Small-Pox, without Bleeding ^f; &c. and of the sad Effects of bleeding Persons sick of the Plague; ^g and my Account of medical Knowledge, ^h and the Method of studying Physick, ⁱ and of Considerations for medical Advisers; ^k I beg Leave to say, that if these various Things,

^a §. 5, &c.

^b §. 9, &c.

^c §. 18, &c.

^d §. 49, &c.

^e §. 116, &c.

^f §. 151, &c.

^g §. 157, &c.

^h §. 174, &c.

ⁱ §. 188, &c.

^k §. 184.

these

Part II. *Remarks on* SECT. I. *considered.* 65

these very important Things have not been by any other Author explained, methodized, and digested in so clear and concise and Order as in that Pamphlet, then my Opinion as to those Things, is right.

§. 203. IF any Gentleman can produce from the medical Writings of antient, or modern Authors, an Account of those Things (§. 202.) in a more clear, and concise a Manner, than they find them there delivered, I ought to acknowledge my Opinion to be mistaken; but, till such an Account is produced, I hope every one will allow me the Satisfaction of thinking I have been enabled to write of them in a smaller Compass than has been before done; and such Things as will redound greatly to the Good of Mankind in the present, and future Ages.

§. 204. IT may not be improper for me here to say, that when I entered into the Design of *Reading Lectures on the Practice of Physick*, my Aim, and Endeavours were to communicate that Knowledge of Things relating to the healing Art, which might fit Persons intending to act as Physicians, for a right, and successful Performance of the Service; and to do this in as few Discourses, as would suffice to accomplish the End proposed.

§. 205. AND at last I reduced the Number of my Lectures, so much, as to be able to go through a Course in four Weeks.

§. 206. IN those few Lectures I consider the various Diseases commonly incident to adult Persons of both Sexes, and to Infants
and

and Children; and (as I apprehend) give a clear Account of them, and likewise a faithful Narrative of the Medicines I prescribe, and of the Methods I have used in Practice with great Success, correspondent to my medical Principles and Cautions.

§. 207. AND it appeared to me that the Lectures were to the Satisfaction of those, who heard them; because, if I was not clear enough in any Point, they had the Liberty of desiring a further Explanation; and if they had an Objection to any Things asserted, they knew they might propose it; and they heard the Questions and Objections that were put to me, candidly considered. And I have no Reason to question their being well pleased with the Instructions they received from me.

§. 208. Remark 2. THIS Gentleman in the same Page says, "We would suppose our Author . . . can intend no Reflection on the Labours of the great and indefatigable *Boerhaave*, who does not appear to have been a very crude, or immethodical Preceptor in Physick, though he has not attempted to contract all its necessary Principles, within the Bounds Dr. *Lobb* proposed in this Pamphlet." *Ibid.*

§ 209. Reply 1. I TAKE this Opportunity to declare, that I intended no Reflection on the great Dr. *Boerhaave*, the Memory of whom (on the account of his extensive Learning, superior Knowledge, and his uncommon Integrity) is much in my Esteem, and always will be;
and

and whose Writings have been of great Use to me: Neither did I design a Reflection on any other Author.

§ 201. Reply 2. AND surely it cannot reasonably be imagined, that I thought the Things necessary to the qualifying a Man for the Practice of Physick, could be comprehended in a Pamphlet, since I have published Four Volumes only on some of the Diseases incident to human Bodies.

§ 211. BUT as for the necessary general *Principles*, and *Cautions*, to be observed in the Practice of Physick, I think they may very well be contracted within the Bounds of a small Pamphlet.

§ 212. PRACTICAL Writers on Diseases differ in their Accounts of them: Their Advices for curing them are often very different; and I don't know, among the many valuable Books in Physick, which I have seen, that any one of the Authors has laid down a Sett of Principles as the Foundation of his Precepts and Directions.

§. 213. Remark 3. THIS Gentleman adds,
 " And in reality, so many and so various are
 " the requisite *Præcognita*, so numerous the
 " Cautions necessary to be observed, and the
 " Distinctions that must be made by a *well-ac-*
 " *complished Physician*, that it seems this would
 " be cramming the Iliad into a Nut-shell."
 P. 499.

§. 214. Reply 1. HERE to explain myself,
 I desire it may be observed, that I acknowledge
 there

there are very many Things, and Branches of Science proper to be known by the accomplished Physician, which I take no Notice of; because my Design is only to assist those, who are under a Necessity, or who, without Necessity, will act as Physicians, in their Endeavours to obtain such just Notions of Distempers, and of the Rules of Practice, and of the proper Remedies, as may not only secure them from injuring their Patients, but be of Service to render their Conduct right and successful.

§. 215. Reply 2. IT must be further observed, that I did not Publish that Pamphlet as containing all the Rules and Cautions needful to be known; or an Account of all the various Diseases frequently incident to human Bodies, but as containing a true, clear, and brief Account of the Causes of Diseases, and of the proper Means for curing them; and some of the most general and important Medical Principles and Cautions, which have not as yet been sufficiently known, and attended to.

The Remarks on SECTION II. *considered.* §. 5, &c.

§. 216. **T**HIS Section of my Pamphlet contains an Account of the Causes of Diseases.

Remark 4. AND in relation hereunto this Gentleman says, "It seems a little odd, that
" in this Place no express Notice is taken of the
" *Solids*.—The antient Rationalists, not the
" meanest

“ meanest Sect in Physick, laid such a particular Stress on the State of the Solids, as to attribute most Diseases to their morbid Tension or Laxity,” p. 499.

§. 217. HERE I would give a Reason why no express Notice was taken of the Solids among the Causes of Diseases. I considered that the *Blood* is the central Fluid of the Body; that the Supplies for the Nutriment of all its Parts, fluid and solid, are carried into it; and that all the Humours secreted for the various Uses of the Body, are secreted from it, as well as all the Excretions are made from it: And that the morbid Symptoms of the Solids, whatever they be, are truly the Effects of some morbid Cause previously subsisting in the arterial Blood; which appeared to me a good Reason for not mentioning them in my Account of the Causes of Diseases: And it deserves Consideration, that every morbid State of the Solids is in reality the Effect of some morbid Cause pre-existent in the Blood.

§. 218. FOR if they are *lax*, it is because there is an Excess in the Quantity of Lymph secreted from the arterial Blood; and transmitted into the *Interstitia* of the Solids: And if they are *rigid*, or under a morbid Tension, it is because there has been a Deficiency in the Quantity of the Lymph secreted, and transmitted into their *Interstitia*. And I may add, that whatever morbid Particles happen in the *Interstitia* of the Solids, they pre-existed in the Blood, and were derived from it.

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§. 219.

70 *Remarks on SECT. III. considered. Part II.*

§. 219. I do not find among the curious Observations, which follow the last Remark, an Objection to any thing contained in my second Section.

The Remarks on SECTION III. considered.

§. 220. **A**S for my third Section on the proper Means for curing Diseases, no Objection is made to any one of them.

Remark 5. ONLY it is said, "as the Doctor informs us here, and in many subsequent Parts of his Essay, that there are certain *Signs* and *Symptoms* necessary to be known, by which all Excess, Defect, or vicious Quality may be discovered, but does not specify any of them; it may very obviously be inferred, that these are communicated and explained in his Lectures," p. 501.

§. 221. Reply 1. IN this Section I observed, that there are such Signs as this Author takes Notice of, and again in Sect. ix. where I recite some of the necessary Parts of medical Knowledge; because they are indeed some of the most important Things to be known by all, who undertake to direct for the Cure of Diseases before they enter upon the Service: And altho' I would suppose all Physicians to understand them, yet as there is vastly a greater Number, who act as Physicians, and are ignorant of them, it is very needful to inculcate the Necessity of knowing them; since without such Knowledge, they will often unavoidably injure, if not sometimes destroy their Patients; and in Cases attend-

Part II. *Remarks on* SECT. IV. *considered.* 71

attended with Danger, only by Accident, and not with Judgment, can give proper Advice.

§. 222. Reply 2. THE Reasons for my not specifying those Signs and Symptoms are given in my Postscript to that Pamphlet.

§. 223. Reply 3. THIS Gentleman might have omitted his Inference, because I declared in my Postscript, that those Things are (among many others) particularly discoursed on in my Lectures.

The Remarks on SECTION IV. *considered.*

§. 224. AS to my *Medical Principles*, contained in this Section, there is no Objection made to any one of them; but this candid Writer thinks I justly reprehend that great Abuse of *indiscriminate* Bleeding, that too frequently prevails.

Remark 6. AND adds, "But we cannot so entirely concur with the Doctor here, in condemning this Evacuation in all eruptive Fevers, in which he considerably differs from Sydenham," *ibid.*

§. 225. Reply 1. THIS Gentleman should have remembred the Point in Question with me is not about the Propriety of taking away Blood in the Beginning of some Fevers, "whether eruptive or not," when there is an Excess in the Quantity of it. This was never controverted by me, but established by my first Principle.

§. 226. BUT it is the Prescribing this Evacuation for Patients, who have no more Blood than a State of Health requires; and the directing this Evacuation to be repeated again, and

again for such sick Persons, that I disapprove of as contrary to Reason. And much more hurtful must frequent Blood-letting be to those who have too little of that vital Fluid.

§. 227. Reply 2. I must own, that in my Researches after Knowledge, I entertain those, Notions, which have plain Evidences of Truth and Utility, though they have not been considered or recommended by any of the most learned Writers: Nay, altho some eminent Authors may have expressed a Disapprobation of them.

§. 228. Reply 3. As to Bleeding in Fevers attended with cutaneous Eruptions, I acknowledge my Dissent from Dr. Sydenham: And indeed he dissented from himself; for he expresses his Disapprobation of Bleeding in the *Scarlet Fever*, on the account of the Revulsion made by it, and the hurtful Effects that might follow. [Vide Syden. Oper. p. 287.]

The Remarks on SECTION V. *considered.*

§. 229. **T**HIS Section contains *Medical Cautions* about the Use of *evacuating Remedies*, and the first Article relates to the Use of Bleeding: And this Gentleman candidly acknowledges, that “most of my general Cautions, with regard to Bleeding, are judicious, “and agreeable to Experience,” p. 501. This gives me a great Satisfaction; and I wish, for the Advantage of sick People, that every medical Adviser had the same good Opinion of them.

§. 230. Remark 7. It is added, “But some “few of them imply more than can always be grant-

“ granted: For Instance, the *first*, which signifies a *Revulsion*, from the Surface to the internal vital Organs, to be the constant and necessary Consequence of it,” p. 501.

The Caution referred to, is delivered in the following Manner, *viz.*

Caution 1. NOT to order Blood to be taken from the Sick, when the *Revulsion* produced by this Evacuation may occasion a Return of morbidic Humours or Particles into the Blood, Part I. § 50.

§. 231. Reply 1. THAT a *Revulsion from the Surface to the internal vital Organs*, are not my Words, and do not express my Ideas; and that I may not be misunderstood, I shall a little explain my Sentiments: And therefore observe, that the *Revulsion* produced by this Evacuation, as I apprehended, is not only from the exterior Superficies of the Body, but from the interior also; and indeed from every Muscle, and Bowel, and other Parts: That is, from all the lymphatic Veins, from all the Extremities of the minutest Vessels which transmit their Fluid into the venal Blood, wherever they are situated.

§. 232. Reply 2. THAT altho' this Gentleman asserts, that this first Caution signifies a *Revulsion from the Surface to the internal vital Organs*, to be the constant and necessary Consequences of it; yet, I imagine, it is not easy to shew, that such a Signification is implied in the Caution: For that Signification limits the *Revulsion* to be only from the exterior Superficies, whereas it affects all the Vessels in every Part of the Body, which communicate their Fluids

to

to the venal Blood, as well as those situated in the Surface of it.

§. 233. Reply 3. IT should be considered, that the Return of morbidic Particles, produced by the Revulsion, is not to any particular internal Organs, vital or not, but into the venal Blood. — This is my Notion of it.

§. 234. Reply 4. IT should have been remembered, that the first Caution is expressly limited to Times when the Revulsion, produced by this Evacuation, may occasion a Return of morbidic Humours, or Particles, into the Blood, *Vid.* Part I. § 50. and if this Limitation had been observed by this Gentleman, he would, I think, have omitted his Exception, as entirely groundless.

§. 235. Reply 5. THE Caution is limited to Cases when there is no Excess in the Quantity of the Blood; and this, I apprehend, shews likewise, that there was no Reason for the Remark.

§. 236. Reply 6. I would observe, that the Effects of taking away Blood are different in Bodies that have too much of it, from those which follow the Evacuation in Bodies that have too little.

§. 237. THE Effects of Blood-letting will appear, if we consider a little distinctly how Things proceed, when this Evacuation is made in a Body which has too much Blood, and in a Body which has too little.

§. 238. I. LET us consider this Evacuation as made in a Body that has too much Blood. Suppose then a Pound of Blood is taken from
the

the Arm of a Man whose healthy Quantity of current Blood is ten Pounds, and who has an Excess of one Pound; the Consequences will be thus, *viz.* Upon the Blood's running out thro' the Orrifice of a Vein in the Arm, there will be a quicker Flow of Blood from those capillary Arteries, which carry their contained Fluid into the capillary Veins, which run into the wounded Vein; and a quicker Flow of Blood from those larger Arteries which supply those lesser Arteries; and a quicker Flow of Blood thro' the ascending *Aorta*; and a quicker Flow of Blood from the Left Ventricle into the *Aorta*; and so from the plumonary Vein into the Left Auricle and Ventricle of the Heart; and from the plumonary Arteries into the plumonary Vein; and from the right Ventricle of the Heart into the plumonary Artery; and from the *Vena Cava* into the right Auricle and Ventricle of the Heart; and from the Extremities of all the capillary sanguine Veins into the *Vena Cava*; and from all the lymphatic Veins which empty their Fluid into the sanguine Veins; and from all the lymphatic Arteries that empty their Fluid into lymphatic Veins.

§. 239. THUS the Circulation of the animal Fluid proceeds in their several Vessels, till the Vessels come to a proportional Fulness. As upon letting out Water by a Sluice from a Series of Canals, which communicates one with another, there is a Drain, or a Revulsion of Water, from the Extremities of the most distant Canals, while the Water is running off thro' the Sluice; and afterwards, till the Water
in

in all the communicating Canals comes to its proportional Quantity or Fulness.

§. 240. AND thus it unavoidably happens in human Bodies, upon opening a Vein, and letting the Blood run out of it. There is an universal Revulsion of Fluid from the most distant Vessels of every Denomination, that communicate with the sanguine Veins; and consequently a Revulsion of Fluid from all the lymphatic Vessels, in the external Superficies of the Body, and in the Membrane of the Mouth, *Oesophagus*, Stomach, Intestines, and in all other Parts of the Body into the venal Blood.

§. 241. THIS I hope will be allowed as a true Account of the immediate natural Effects of Bleeding: And now as to the Case supposed, we may observe, 1. That the taking away one Pound of Blood, reduces the Quantity of that Patient's Blood to the Standard of Health; and frees him from one Cause of Sickness, and therefore to him is beneficial.

§. 242. 2. THAT the Excess of the Quantity of the Blood being removed, the Circulation of it becomes more free and easy; and the Action of the vital Organs stronger; and a more copious Secretion of the Humours to be secreted follows thereupon; and a brisker Flow of Fluid into all the lymphatic Arteries, and excreting Glands and Vessels; whence it happens that in the Case supposed (§. 238.) or when Bleeding is advised for Persons who have too much Blood, although there is a Revulsion, from every Superficies of the Body, during the Time that the Blood is running out of the

Part II. *Remarks on* SECT. V. *considered.* 77

the Vein, and till all the Vessels come to a proportional Fulness; yet immediately after there follows a *Derivation*, or a greater Flow of Fluids to the minutest Vessels in every Part of the Body; and the Excretion to the Surface of the Body as well as in other Parts of it is promoted.

§. 243. Hence it often happens that taking Blood from Persons in the Beginning of Fevers of the eruptive Kind, proves advantageous to them if they have an Excess of Blood; and the bleeding such Persons I very much approve: I do not know how it is with other Physicians; but for myself, I do not remember the Time of being called in early enough to see a Patient in the Beginning of a Fever.

§. 244. 2. LET us now consider the Effects of *Blood-letting* in a Patient, who has no more Blood than a State of Health requires, or who has too little. And here a few Things must be observed, *viz.* 1. That taking Blood from a Person, who has no more than a State of Health requires, will render the Quantity of his vital Fluid proportionally to the Quantity taken away, less than it ought to be.

§. 245. 2. AND consequently will proportionally lessen the Quantity of all the Fluids daily secreted from the Blood, for the Uses of the Body, and especially of the nervous Fluid, necessary for maintaining the *Vis Vita*.

§. 246. AND therefore will lessen the vital Strength; and more or less hinder those Excretions which are necessary for freeing the Blood from its superfluous, and morbid Parts;

M

and

78 *Remarks on* SECT. V. *considered.* Part II.
and by this Means must encrease the Danger
of the Patient's Life.

§. 247. AND if these sad Effects naturally follow the bleeding Persons, who have no more Blood than a State of Health requires, we have Reason to apprehend that the Consequences of taking Blood from those who have too little of it, will be worse; worse in Proportion to the Deficiency made in the Quantity of the vital Fluid.

§. 248. THIS Gentleman having observed that my first Caution supposes a Revulsion to be the constant and necessary Consequence of it [*i. e.* of Bleeding] asserts that *reiterated Facts evince the very reverse.*^a

§. 249. THESE Words imply this Proposition, *viz.* that reiterated Facts evince, that a Revulsion from the Superficies or Surface of the Body, is not the constant, and necessary Consequence of Bleeding.

§. 250. BUT I must beg Leave to say, that this Proposition cannot easily be assented to, till *such reiterated Facts* are produced.

§. 251. THAT a hurtful Revulsion is not the Consequence when Blood is taken away in the Beginning of Fevers from Persons, who have too much of it, I readily grant: But it is necessary to shew, by Facts, that a prejudicial Revulsion is not the Consequence of bleeding Persons, who have too little Blood, or no more than a State of Health requires.

^a *Monthly Review*, p. 501.

§. 252. THIS Gentleman adds, " We would
" gladly be instructed whether the Relief ob-
" tained by Bleeding, and sometimes very
" speedily, in Pleurifies, and some asthmatic
" Cases, is produced in Consequence of a Re-
" vulsion from the *Circumference to the Cen-*
" *ter.*" Ibid.

Reply 1. I MUST observe that a Revulsion from the Circumference to the Center are not my Words, nor express any Notion of mine.

Reply 2. THAT the Relief, which Persons in Pleurifies and other painful Disorders obtain by Bleeding, as I apprehend, is procured partly by lessening the Quantity of the Blood both in the Veins and Arteries, and consequently lessening the Distention of those Vessels, and their pressing against their adjacent Nerves; and partly by a Revulsion of Fluid into the Blood from the lymphatic Veins of the Parts pained as well as from the lymphatic Veins in all other Parts of the Body; and a Revulsion of Fluid from all the lymphatic Arteries in the Part pained, and in all other Parts of the Body, into those lymphatic Veins, which transmit their Fluid into the venal Blood: This is my Opinion, and not any Revulsion from any Circumference to any Center.

§. 253. Remark 8. THIS Gentleman observes that " when the real Quantity of Blood
" is in its natural Degree (that is, as I suppose,
" when its Quantity is no more than a State of
" Health requires) there may be a symptomatical
" *Pletkora*, or Fulness of it, from great *Rare-*
" *faction*, which will as effectually create a

“ Tension of the Vessels, and a Straitness of
“ the excretory Ducts ; as if the Quantity was
“ excessive.” p. 501, 502.

§. 254. Reply: I GRANT that often in Fevers, when the Quantity of the Blood is much too little, there is a Rarefaction of it, and a Distention of the animal Vessels, and a Compression of many excretory Ducts : But this affords no Argument for taking away Blood from such Patients, who have no Excess of it.

§. 255. VARIOUS Occasions will rarefy the animal Fluids, *e. g.* sitting by a good Fire, violent Exercise, sultry Weather ; and febrile Heat, will rarefy the Blood, and produce a sensible Distention of the Veins, and of the other animal Vessels ; as Cold will condense the animal Fluids, and render the sanguine Veins less discernable.

§. 256. BUT all Rarefactions of the Blood may happily be removed, by removing the Cause which produced them : And from numberless Facts, I know, that the Rarefaction of the Blood in Fevers may be removed without rendering a too little Quantity of it still less by Phlebotomy.

§. 257. AND I should think my medical Knowledge very defective in an important Part of a Physician's Business, if I was not acquainted with Medicines proper, and effectual for the Cure of such Patients without bleeding them.

§. 258. I MAY add, that since Rarefactions of the Blood may be removed without bleeding Persons, who have no Excess in the Quantity of it, (as appears from many Facts truly related

related in the Books I have published) it may be concluded, that this Evacuation in such Persons is unnecessary.

§. 259. There is no Objection to my Second Caution.

§. 260. Caution III. My Third Caution was this, *viz.* Not to take Blood from fat People without some urgent Necessity, Part I. §. 56.

§. 261. Remark 9. This is allowed to be in general right; yet it is added, "But we are to consider how copiously, and speedily some Bodies may be said to sanguify, Page 502."

§. 262. Reply. This indeed is a reasonable Consideration, because in some Bodies the Chyle is more quickly transmuted into Blood than in others; and Blood therefore may more freely be taken from such Bodies, when there is Occasion for it: But the Difficulty of knowing in what Individuals, there is this copious and speedy Sanguification, will leave the Physician in Uncertainty, whether his Patient is such a Person or not. Doubtless the *leucophlegmatic* and *chachectic* Bodies, and all Persons, who have Symptoms indicating a Deficiency in the Quantity of their Blood, are out of the Question: These cannot with any Reason be thought to ~~sanguine~~ copiously or speedily.

§. 263. Caution IV. My Fourth Caution was this, *viz.* Not to take away Blood from Patients, who find their Strength less than usual, Part I. §. 58.

§. 264. Remark 10. "This Caution (it is said) is just with this Exception, provided this Abatement of Strength doth not depend on
" an

“ an actual Load of Blood ! by which I suppose is meant an *Excess* in the Quantity of it.”

§. 265. Reply. To explain myself, I desire It may be observed, that I did not intend Patients of a sanguine Constitution, and full of Blood, but such as were in an ill State of Health, and found their Strength growing less. And I apprehend that my first medical Principle (Part I. § 18.) renders the Exception needless, as it directs taking away Blood when there is too much.

§. 266. There is no Objection made either to the 5th, or 6th, or 7th Caution about Bleeding.

Of Vomiting.

§. 267. **I** Have, in Part I. proposed four Cautions, relating to the Use of this Sort of Evacuating Remedies.

§. 268. As to the first of them, the Reasonableness of it seems to be allowed, while Persons are plethoric ; and that this is the Meaning of the Caution, is plain from the Words of it, and the Reason assigned in support of it, Part I. §. 74, 75.

§. 269. This Gentleman well observes, that by premising Venesection in plethoric Bodies, the ill consequences, that is, a Rupture of some Vessels may be prevented ; and it certainly is a judicious Method, when a Vomit is indicated in a Person who has too much Blood, first, to order Bleeding, and after that Vomiting.

§. 270. My Second Caution is this, Not to
I advise

advise vomiting Medicines, either in *eruptive* Fevers, or *cutaneous* Diseases; Part I. §. 76.

§. 271. This Gentleman makes no Objection to the latter Part of it, *viz.* as to *cutaneous* Diseases: and as to *eruptive* Fevers, I would observe, that the Reason given in support of it shews, that it is limited to such Times of eruptive Fevers, wherein there may be a Revulsion into the Blood of morbid Particles; and thus the Caution has the Qualification, which he thought needful.

§. 272. Remark 11. He then adds, “*Sydenham*, expressly saying—If there be the least Suspicion that the Small-Pox, which are coming out, will be of the confluent kind, it will be highly necessary, not only to bleed immediately, but likewise to give a Vomit,” p. 502.

§. 273. Reply 1. I think it is not reasonable to allow the Force of an Argument to the Opinion of any medical Author, who has not supported it with solid Reason. I have a great Value for the Writings of that Physician, and read with Pleasure the clear Descriptions which he gives of the Symptoms of many Diseases: But I do not find his Precepts supported by any System of medical Principles, nor given with the necessary Cautions; or that he has taken any Notice of the Difference that is in the Case of Patients, who have too much Blood, from that of others who have too little.

§. 274. This Gentleman rightly observes, that Vomiting is an Evacuation, which I pretty generally disapprove, (p. 502.) It is very true,
and

and I do so, because of the Violence of the Operation of emetic Medicines, and the ill Consequences which may follow it ; and because it appears to me an unnecessary Sort of Remedy in most Cases, there being others more gentle that may accomplish the-End to be endeavoured.

§. 275. It is always a Rule with me, never to advise violent Medicines; especially, when the Diseases may be cured by those which are mild.

§. 276. Vomiting Medicines indeed diminish the Quantity of the lymphatic Fluid; but when that Fluid is excessive, it may easily be diminished by milder Ways of Evacuation.

§. 277. And as to a morbid Quality subsisting in the animal Fluid, of what kind soever, it may be removed by suitable *alterative* Medicines, which make no Commotion, or Disturbance in the Body.

Of Purging.

§. 278. **A**S to this Way of making Evacuation, I give three Cautions. But before I take notice of what this Gentleman has observed, I would a little further explain myself, and say, that the Thing which I mean should be avoided, is the giving purging Medicines in such Doses, as are design'd to augment the Number of the Stools, and the Quantity of the intestinal Evacuation.

§. 279. This is the Sort of prescribing purging Medicines, against which my Cautions are intended.

§. 280:

Part II. *Remarks on* SECT. V. *considered.* 85

§. 280. A Physician may direct purgative Medicines in such minute Doses, as will not produce any Stool. I have often prescribed them in very small Doses, and with great Success, even in some Fevers attended with a Looseness, when that Symptom was detrimental to the Patient.

§. 281. THIS Gentleman has made no Objection to my First Caution; and as to my Second, he allows that it seems rational. He says, "It may be added here, however, that a judicious Exhibition of some particular Cathartics, in such small and reiterated Doses, as to produce their Effects rather upon the Humours than on the Intestines, (whence their Evacuation will be scarcely sensible) has been found of great Service in a viscid State of the Blood, and such chronical Complaints as often result from it." Monthly Review, p. 503.

§. 282. I grant, that some cathartic Medicines may be given as proper *Alteratives* of a viscid Quality of the Blood, and in such small Doses as will not sensibly increase the Evacuation from the Intestines; but it should be remembered, that this is not a Practice against which my Second Caution was designed.

§. 283. As to the Caution from *Hippocrates*, (Lib. II. Aph. 29.) * it may be observed, that he does not mention the Symptoms, which indicate the making a Discharge or Evacuation from the Body of the Patient, nor specify what Discharge should be made; and therefore the

* Lib. II. Aph. 29. Ἀρχομένων τῶν νέων, ἃν τὰ δοκῇ κινεῖν, πρὶν ἀμαζεύσῃν δὲ, πούχινον ἔχειν βέλτιον ἐστίν.

86 *Remarks on* SECT. V. *considered.* Part II.

Aphorism can be but of little Use to the Reader.

§. 284. I may add, that from the Aphorism referred to, (§. 283.) it appears, that *Hippocrates* thought it better not to force any Evacuation in the Progress of Diseases.

§. 285. I do not find any Objection against my Caution, which relates to the increasing the Quantity of Urine, or to the prescribing sweating Medicines.

§. 286. THIS Gentleman referring (in Page 504.) to the 22d *Aphor.* Sect. 1. of *Hippocrates*^b, leads us into the Consideration of a very useful Notion of that great Man, who thought that *concocted* Humours, and not *crude*, were to be purged out of the Body.

§. 287. *Concocted* Humours doubtless are those, whose Parts are sufficiently comminuted, that is, so much as to pass easily out of the Body, thro' the excretory Vessels: And *crude* Humours are those, which are not duly attenuated, or whose Parts have not yet been rendered minute enough for Evacuation.

§. 288. THESE are just Sentiments, and correspondent to them. He taught, that they who would purge their Patients, should first render the morbid Humours fit for Evacuation^c, or the noxious Particles, minute enough to pass easily thro' the excretory Vessels.

^b The Passage cited, is the First Part of Aph. 22. Sect. 1. of Hipp. Πίπτονα φαρμακύνειν, ἢ κινῆιν, μὴ ἄμα.

^c Vid. Hip. Sect. 2. Aphor. 9. Τὰ σώματα χρεὶν, ὅτε ἀν τις βάλῃ-ται, καθαίρειν, εὐρεῖα ποιεῖν.

§. 289. AND surely, I think, there can be no Difficulty in apprehending, that when there is a morbid Quality subsisting in the Blood, and obstructing the natural Evacuations, those *alterative* Medicines should first be prescribed, which may remove it; and then the purging Medicines (when wanted) will be abundantly more beneficial.

Of prescribing Medicines to increase the Quantity of the Urine, or to produce Sweating.

§. 290. MY Cautions about the promoting these two Sorts of Evacuation, (Part I. Sect. 90, &c. and §. 100, &c.) as this Gentleman rightly observes, (p. 503.) are similar, and they are so, because they are grounded on similar Reasons; and because the ill Effects of forcing those Evacuations, when it would not be done, are similar. And it is a Satisfaction to me that no Objection is made to them.

Of Blistering.

§. 291. I Have given three Cautions as to the Application of Blisters: The two first, he thinks, seem very just, and not to have been always *sufficiently attended to in Practice*, p. 504.

§. 292. THE third, *dissuading this Application to a Woman in the Menses*, he says, appears equally rational.

§. 293. IT seems to me a natural Inference from this Concession, that the Application of Blisters to a Woman, when her *Menses* are excessive, must be proper, altho' not necessary.

§. 294. AND I apprehend it to be so, but never do direct it in my own Practice, because I know Remedies effectual to restrain the immoderate Flux, which will give the Patient no Pain.

§. 295. As for Mr. *Bellinger*, I imagine his Testimony of Facts, which he asserts to have seen, would have been allowed in any Court of Judicature.

§. 296. This Gentleman adds, "*We have positively* often seen great Hæmorrhages excited by the Abuse of Blisters; and, upon an obstinate Repetition of them, mortally renewed," p. 504.

§. 297. It would have answered some valuable Purpose, if a Narrative of those Cases had been published.

§. 298. Granting that Hæmorrhages are producible by a certain excessive Application of Blisters; yet it will not follow, that a moderate Application will produce them: No, but rather prevent or stop them, by contracting with their *Stimulus* the component Parts of the Vessels, and lessening their Diameter.

§. 299. A Dose of some emetic Medicine may be made so large as to destroy the Life of the Patient in a very short Time; and thus a Dose of many purging Medicines may be made so strong as in a very few Hours to bring Death to the Person that shall take it: But this, I think, is no Argument against prescribing them in such lesser, moderate, and proper Doses, as have always been found gentle in their Operation.

§. 300. AND in like manner as to the Application

cation of Blisters; I am sensible, that if too many and too large Blistering Plaisters are applied, sad Effects, injurious to the Patient, will follow thereupon, even altho' an Hæmorrhage should not be the Consequence.

§. 301. THE Consideration of which may shew the Importance of my Cautions.

§. 302. HERE let me observe, that Blistering Plaisters of different Sizes, are like different Doses of other Remedies; that is, greater, or lesser in a great Variety of Degrees: And that there should be as much Care in adjusting the Size of a Blistering Plaister, as in determining the Dose of a Medicine to be taken into the Stomach.

§. 303. I have seen on the Backs of Children Blistering Plaisters as large as I should think proper for an adult Person: And in my own Practice, I generally cut out the Size of the Plaister, when I prescribe this Application for Infants and Children.

SECTION VI.

Of my Account of Fevers, Part I. §. 116, &c.

§. 304. **I**T gave me no small Satisfaction to find, that this Gentleman, as well as *Van Swieten*, approves my Account of Fevers, as being produced, either, 1. by *inspissating* or *incrassating* Causes; (I take these Words to be synonymous) or, 2. by *dissolvent* Causes; and that he thinks it a necessary practical Distinction; as certainly it is, tho' not so often adverted to, as it ought to be; but I hope this ingenious
Phyfi-

Physician, who is well furnished with Abilities for it, will use his Endeavours to promote the Knowledge of, and a due Regard to a Distinction; without which, many Persons, under some Fevers, must unavoidably be mismanaged.

§. 305. My third Sort of Causes, which I assign as productive of Fevers, are the two foregoing Causes acting in some Combination, (vid. Part I. §. 123.) and here this Gentleman differs from me.

§. 306. Remark 12. He says, " But that " these *inspissating* and *dissolvent* Causes combine in the Production of some Fevers, and " specifically exert their different Effects on a " Fluid so continually moved as the Blood, is " much sooner asserted than proved, or even " tolerably conceived." p. 505.

§. 307. Reply. I gave the Reasons of my Opinion (in Part I. §. 135.) in my observing, that, in several of my Patients under Fevers, there were some Symptoms, which only could be produced by *inspissating* Causes, and likewise other Symptoms, which only could be the Effects of *dissolvent* Causes.

§. 308. AND I may say, that the Coexistence of such different Symptoms in any Person under a Fever, is to me a Demonstration of a Coexistence in the Blood of the different Causes mentioned; whatever Difficulty there may be in explaining the *Modus* of it.

§. 309. BUT Gentlemen who cannot assent to the Truth of an Opinion, altho' grounded on Facts, because they cannot comprehend how different Qualities can at the same Time subsist
in

Part II. *Remarks on* SECT. VI. *considered.* 91
in the same Substance, have their Liberty of dissenting from it.

§. 310. THAT different Qualities subsist in the Substance we call *Mother* in Vinegar; and that different Qualities are introduced into Milk by mixing Rennet with it, I believe no Body will deny: And I do not know any Reason that can be assigned against the Coexistence of different Qualities in a Fluid always moving or circulating thro' a Series of Vessels in a living Body; and we may be indulged in thinking, that there is no Reason for the Negative, till a proper Reason for it is assigned.

§. 311. IN my Second Volume on Fevers, I have given an Account of the various *febrile Symptoms* incident to human Bodies under those Diseases, as to their Causes, the Manner of their Production; and likewise of their Significations, and their curative Indications.

§. 312. AND according to my Distribution of these acute Diseases into three general Classes, (*viz.* 1. Those which are produced by *inspissating* Causes. 2. Those which are the Effects of *dissolvent* Causes. And 3. those which result from the two former Sorts of Causes acting in some Combination, which I call *complex Fevers*.) I have given *Tables* of the several Species of Fevers comprehended in each of the three general Kinds; and likewise Tables of the Symptoms attendant on each general Class of them, particularly, 1. A Table of the Symptoms, which discover to us, that the Fevers they attend are produced by *inspissating* Causes; and that the Blood is too thick, or viscid. 2. A Table
of

92 *Remarks on* SECT. VI. *considered.* Part II.

of Symptoms, which signify, that the Fevers are the Effects of *dissolvent* Causes; and shew that the animal Fluids have an acrimonious Quality, and are too thin, and the animal Vessels too lax. And, 3. A Table of Symptoms, which shew, that their Fevers are produced partly by *inspissating*, and partly by *dissolvent* Causes. Vid. Vol. II. p. 194, to 200.

§. 313. AND in that Volume I have given Histories of Persons afflicted with Fevers of the different Kinds treated on, and happily cured by the Methods of Management, and Medicines, which correspond with the *Medical Principles* and *Cautions* published, and proposed to be examined of the Learned, in the First Part, on this Subject.

The Remarks on SECTION VII. *considered.*

§. 314. IN my Seventh Section, containing an Account of the Cure of *Fevers* and the *Small-Pox*, &c. without Bleeding, I deliver my Sentiments thus, viz. "I can truly say, "from large Experience, that not only all the "common *acute* Diseases, but all Sorts of *chronical* Distempers, arising from, and depending ONLY on some morbid Quality of the "Blood, and likewise all Sorts of *cutaneous* Diseases [that is, which depend *only* on a morbid "Quality] may happily be cured without "Bleeding, and without *Purging*. I may add, "that the various Kinds of *painful* Distempers " [that is, which arise from, and depend only "on some morbid Quality of the Blood] may "likewise be cured without those Evacuations."

§. 315. AND these, my Sentiments, are grounded on Reason, and supported by Facts occurring to my Observation in the Course of my Practice.

§. 316. I desire it may be remembred, that I was speaking only of Diseases that arise from, and depend *only* on some morbid Quality of the Blood.

§. 317. AND it appears to me very plain, that when a Disease is produced by, and depends *only* on a morbid Quality, the removing that morbid Quality is the *only* Thing wanted for curing it; and that Bleeding and Purging are entirely needless.

§. 318. BUT in different Cases the Remedies must be different: Thus, if the Disease is produced partly by a morbid Quality of the Blood, and partly by an Excess of its Quantity, then Bleeding should be advised: Or if the Distemper is produced partly by a morbid Quality, and partly by an Excess in the Quantity of the Serum, and Lymph, as is the Case in Dropsies, then those Evacuants which may lessen the excessive Quantity of those Fluids, as well as alter the morbid Quality of them, should be prescribed.

§. 319. BUT if there is no Excess in the Quantity of any of the animal Fluids, but a wrong Quality is the only morbid Cause, it seems to me, that lessening the Quantity of the Blood by Bleeding, or the Quantity of the Lymph, by Purging or Sweating, &c. will render these Fluids less than they ought to be, and consequently prove injurious to the Patient, less or

94 *Remarks on* SECT. VII. *considered.* Part II.
more in proportion to the needless Diminution
of those Fluids.

§. 320. THIS Gentleman's Remark on what
I delivered concerning the Cure of Fevers, &c.
without *Bleeding*, is as follows, *viz.*

Remark 13. " IF Dr. Lobb can truly say
" from large Experience, as he affirms here,
" that all Sorts of acute and chronical Distem-
" pers depending on some morbid Quality of
" the Blood, all cutaneous Diseases, and all
" painful ones too, may be cured without
" Bleeding and Purging, we may venture to
" engage, that many eminent Members of the
" Faculty, of equal Experience, are able to
" produce as many Instances of many of the
" same being cured, by the Assistance of *Bleed-*
" *ing* and *Purging*, joined to a proper *Regimen*,
" and other Remedies," p. 505, 506.

§. 321. Reply 1. HERE I must observe, 1.
that after the Word *depending* should have been
added the Word *only* or *merely*; without which
I cannot think my Notion is duely represented.

§. 322. Reply 2. THAT I acknowledge
other Physicians may produce numerous In-
stances of Persons cured of Fevers, &c. for
whom they prescribed Bleeding, or Purging, or
both: And I will suppose they did it with very
good Reason, *viz.* an Excess in the Quantity of
that Fluid, which they ordered to be diminish-
ed. Persons under Fevers, who have too much
Blood, should have the Assistance of Bleeding,
as well as other Remedies: And Patients under
Fevers who have too much Lymph, should be
aided with Purging or some other Evacuants,
which

which may diminish the Quantity of it. As to these Sorts of Patients, I agree with every Gentleman, who thinks those Evacuations proper for them; but such Cases are not to be objected to my Opinion: For according to my Principles, when any of the animal Fluids exceed in Quantity the Standard of Health, it ought to be diminished. Vid. Princip. I. II.

§. 323. THE proper Instances to be mentioned in contrast with mine, are of Persons under Diseases, who had too little Blood, or not more than a State of Health required at the Time of their Sickening; and who were blooded once, or twice, or oftner, and their Recovery thereby promoted: Or of Persons who had too small a Quantity of Serum and Lymph, or no more than was needful to a State of Health, who nevertheless were purged or sweated; and, it may be, again and again, and whose Recovery was promoted thereby.

§. 324. HISTORIES of such Cases are the only proper ones to be produced as Matter of Objection to me.

§. 325. Reply 3. As this Gentleman says, "that many eminent Members of the Faculty are able to produce as many Instances of many of the same being cured by the Assistance of Bleeding and Purging, joined to a proper Regimen, and other Remedies:" I beg Leave to observe, 1st, that the Expression *other Remedies*, seems to signify *alterative Medicines*, as it is distinguished from the evacuating Remedies of Bleeding and Purging; and as *alterative Medicines* are certainly needful in

all Diseases depending on some morbid Quality of the Blood. I would observe,

§. 326. *2dly*, THAT People under Diseases, should be distinguished into their proper Sorts: *Viz.* 1. Such as have an Excess in one or other of their Fluids. 2. Such as have no Excess in any of them. And, 3. Such as have a Deficiency in the Quantity of one or other of them.

§. 327. As to the *first* Sort, it is very manifest, that whatever is their Distemper, they stand in need of some Evacuation, which therefore should be prescribed; and Bleeding or Purging such Patients, joined to other Remedies of an *alterative* Nature, when a morbid Quality subsists in the animal Fluid, is a proper Method of Management for their Recovery.

§. 328. BUT in the *second* Sort, those Evacuations appear to me not only needless, but improper; and like to produce ill Effects in the Body, in proportion to the Degree of diminishing the Quantity of the Blood, and Lymph.

§. 329. AND the making those Evacuations in the *third* Sort of Patients, appears to me a Practice much more to be avoided.

§. 330. I agree with this Gentleman, that in *sanguine hale Subjects*, if they have too much Blood, the Omission of Bleeding is a sad Neglect.

§. 331. BUT it should be considered, that in all contagious Fevers, the *infecting Particles* (admitted into the Blood, and producing the Disease) do assimilate many Parts of *the Blood* into their own Figure, and Kind; and not only become diffused, and multiplied in it, but pass into all the secreting and excreting Organs and
Vessels,

Vessels ; and become diffused in the whole Mass of Fluids contained in the Body, and in the Humours excreted from it.

§. 332. IN contagious Diseases, infecting Particles continually pass out of the Bodies of Sick, with their Breath, their Sweat, and the Matter of their insensible Perspiration, as well as with the other daily Evacuations : And hence it is that the Linen, Bed-cloaths, and other Things, about such Patients, become replete with infecting Particles, and capable of propagating the Distemper to others.

§. 333. THUS in the Small-Pox, and through all the Stages of it, Multitudes of variolous Particles are continually passing from the Blood, not only into the Pustules, but from them and all other Parts of the *Superficies* of the Body ; no less than by the other natural Excretions ; as is evident from the Scent of the Body of the Sick, and of the Air circumambient to it, that being so replete with the variolous Particles, as sensibly to impress the swelling Organs of those who go into his Chamber.

§. 334. THEREFORE this Gentleman, I apprehend, was mistaken in saying, “ Every Particle assimilated, and not discharged some other Way before Eruption, must terminate in it,” (that is, I suppose, terminate in the Eruption or in the Pustules) “ or the Patient must die in the first Stage of the Disease, for Want of it,” p. 506.

§. 335. I suppose the Want of being discharged some other Way, is the Thing meant.

§. 336. IT seems to me that this Notion (§. 334, 335.) needs a little Explanation, because it is most certain in many variolous Patients, that Multitudes of Particles of the Blood are assimilated into a variolous Nature, and neither discharged some other Way before the Eruption, nor terminate in it; and yet the Patients do not die in the first Stage of the Disease. This is the Case not only of those who pass through the lower Degrees of the distinct Small-Pox, but of all that recover from the confluent Kinds of it. Indeed the variolous Particles are assimilating other Parts of the Blood into their own Nature, not only before the Eruption, but afterwards.

§. 337. HE proceeds thus: "Now if such a Quantity is assimilated, as the Superficies of the Body is not sufficiently ample to contain, the *Viscera* must be charged with the super-numerary Pustules; the Consequence of which is easily deducible." *Ibid.*

§. 338. THE Meaning of this Passage (§. 338) is not very obvious to me, because the *Epidermis* and *Cutis* may more fitly be considered as a Sieve (through which all Sorts of Particles pass from the Blood, and out of the Body, that are minute enough to go through the numberless excretory Tubuli situated in the external Superficies of the Body) than be spoken of as a Vessel, which contains what is put into it.

§. 339. BESIDES, it is not explained what is signified by the Expression the *supernumerary Pustules*.

§. 340. THIS Gentleman mentions, as an Argument for Bleeding in eruptive Fevers, that
thereby

Part II. *Remarks on* SECT. VII. *considered.* 99

thereby we certainly substract some of the infected Particles. Monthly Review, p. 506.

FOR an Answer to this Argument, see my Treatise on the Small-Pox, Part I. §. 627.

§. 341. HE adds, " We also leave the Teguments and excretory Ducts more relaxed and pliable, that is, better disposed to admit, or even invite an external Eruption, which in a tense and rigid State, they must rather oppose." *Ibid.*

§. 342. HERE it should have been considered, that in the worst Sort of the Small-Pox, in putrid Fevers, and doubtless in all Fevers attended with any colliquative Evacuation, and in all Fevers produced by *dissolvent* Causes, the muscular Fibres, the animal Vessels, and excretory Ducts, are never in a tense and rigid State, but have a morbid Laxness.

§. 243. THEREFORE, in such Cases, Bleeding the Sick should not be advised; and the Difference between those Patients whose Vessels are rigid, and those whose Vessels are lax, should have been taken notice of.

2. AND it seems exceeding difficult to comprehend how a forced Evacuation from the Blood-Vessels (which always produces a Revulsion from both the external and internal Superficies of the Body, and a Return of Humours into the Blood from all the lymphatic Veins which carry Fluids into the sanguine Veins) can invite an external Eruption, where there is no Excess in the Quantity of the Blood.

§. 344. THE History related by Dr. *Fuller*, in his *Exanthematologia*, wants Evidence to

100 *Remarks on* SECT. VIII. *considered.* Part II.
prove that the Case of the Patient was the
Small-Pox.

The Remarks on SECTION VIII. *considered.*

§. 345. **M**Y Eighth Section, on Bleeding in
the *Plague*, this candid Gentleman
is sensible of its Importance; for he says, "As
" the two eminent Physicians mentioned, (*viz.*
" *Diemerbroeck* and *Hodges*) had seen a great
" deal of that dreadful Distemper, and are un-
" animous in condemning it, as always unsuc-
" cessful; it seems reasonable to prefer their
" ocular Experience to *Sydenham's* Opinion of
" the *Plague*, from which he confesses he re-
" tired in 1665," p. 507.

§. 346. Remark 14. THIS Gentleman adds,
" Dr. *Lobb* seems, in this Section, to subscribe
" to Dr. *Keil's* Calculation of the Quantity of
" the Blood in the human Body, by supposing
" it at least five-eighths of the Weight thereof;
" *i. e.* allowing a full hundred Pounds of Blood
" to a Body weighing one hundred and sixty
" Pounds." *Ibid.*

any §. 347. HERE it is needful for me to observe
some Things, to prevent ~~any~~ Sentiments being
mistaken; particularly,

Reply 1. THAT I have never in my own
Mind so much as made any Calculation of the
Quantity of the Blood in general subsisting in
all Parts of the Body.

Reply 2. THAT the Blood, of which I have
estimated the Quantity, is only that which I call
the current Blood; by which I mean that Por-
tion or Quantity of the red Fluid in the Body,
which

which may run out of it upon cutting thro' the larger Veins and Arteries; and which, during Life, is continually circulating thro' the Heart, Lungs, and larger sanguine Vessels.

§. 348. THERE is much more Blood contained in the Body than that which I call the *current* Blood; even all that red Fluid, which fills those minute sanguine Vessels, that constitute the greater Part of the Substance of the Muscles: But as the Blood contained in them will not flow out of them, upon emptying the larger Arteries and Veins; so I apprehend that an Inquiry into what may be the precise Quantity of it, is of no Importance.

§. 349. BUT it is a Matter of great Moment to know, as near as we can, the Quantity of the *current* Blood; and in what Proportion to the Diminutions of it, the vital Strength may be diminished.

§. 350. FOR obtaining the Knowledge of the Quantity of the *current* Blood, I considered the Experiments made by the Ingenious Dr. *Hales*, and those made by *Moulinus*, related by Dr. *Keill*, and likewise I made some myself; and from these Experiments it appeared to me, that the mean Quantity of current Blood in an animal Body is not more than the *nineteenth* Part of the Body, which contains it.

§. 351. MY Calculations only relate to the Quantity of the *current* Blood in animal Bodies, as may be seen in my First Volume on Fevers, p. 269, ad. p. 278.

§. 352. AND that I might know in what Proportions to the Diminutions of the Quantity of

the *current* Blood in an human Body, the vital Strength, or Force may be diminished, I made careful Researches into this Matter, and have given an Account of the Result of them, *ibid.* p. 279, &c.

§. 353. IF this Gentleman had read the 13th Chapter of my First Volume on Fevers, I apprehend he would have been satisfied, that my Inquiry was limited to the Quantity of the current Blood, not to the Total of it, that may be in human Bodies.

§. 354. Reply 3. IT should have been observed, that in the Section referred to, I spoke of the infecting Particles admitted into the Blood, as becoming diffused in it, and in the Lymph and other Fluids of the Body: And, indeed, my Meaning was, that if the Quantity of the several Fluids contained in the Body amounted to no more than one hundred Pounds in a Man weighing 160 Pounds, then the taking away one Pound of Blood, or of any other of the animal Fluids, could diminish no more than one Part in an hundred of the infecting Particles.

§. 355. AND that I included the several Sorts of Fluid contained in the human Body in the supposed Quantity of *one hundred Pounds*, I think is very evident from Part I. §. 168.

§. 356. I never imagined, that the red Blood in such a Body is near so much, tho' it greatly exceeds the Quantity of the current Blood: But I apprehend, that the Weight of the Fluids in a Body weighing 160 Pounds, does much exceed one hundred Pounds.

§. 357. Reply 4. THIS Gentleman seems
very

Part II. *Remarks on* SECT. VIII. *considered.* 103

very much to have mistaken Dr. Keill's Calculation, which was not a Calculation of the Quantity of red Blood distinguished from the Lymph and other Fluids, as he very clearly explained his own Meaning, saying, "By Blood I understand not only the Fluid in the Veins and Arteries, but likewise that in the *Lymphbeducts*, *Nerves*, or any other Vessels of the Body; because they are all Parts of the Blood, separated from it by the Force of the Heart, and many of them by the same Force return to it again. And therefore when I speak of the Quantity of Blood in the Body, I would be understood to mean the Quantity of circulating Fluids, of what Kind soever they be." Vid. Dr. Keill's *Essays on the Animal Oeconomy*, Edit. 2d, p. 34.

§. 358. IF this Gentleman had considered these Things, surely he would have omitted the last Remark as groundless.

The Remarks on SECTION IX. *considered.*

§. 359. **I**N this Section I did deliver it as my Opinion, that there are *Signs* by which we may nearly know the Quantity of the Blood, of the Lymph, and of the nervous Fluid; and particularly as to each of them, when they exceed, or are deficient in Quantity; and likewise *Signs* or Symptoms, from which we may learn the several Sorts of morbid Qualities incident to the animal Fluids; and which of them subsists in this or that Kind of Diseases, whether acute, or chronical.

§. 360. AND this very important Knowledge,

I apprehended, we could not get by reading the Works of *Hippocrates*, or of *Galen*, or of the other *Greek* medical Writers, or the Books of the *Arabian* Physicians; altho' the Study of them may be of great Advantage for other Purposes.

§. 361. IF any Gentleman has found those Things clearly laid down in the Books of those ancient Writers, he will do a considerable Service, if he shall acquaint the Publick in which of their Writings they are contained, and direct us to the Places where they may be read.

§. 362. I must own, that an Acquaintance with the State of the animal Fluids as to *Quantity* and *Quality*, and of the State of the Vessels in Bodies under Sickneſs, ſeems to me one neceſſary Part of medical Knowledge: *Necessary*, did I ſay? Yes! and ſo neceſſary, that without it we cannot be ſure we preſcribe the right Medicines for the Recovery of our Patients; ~~nor~~ for ought that we know, in ſuch Caſes we may be injuring the Sick, inſtead of leſſening the Diſeaſe.

§. 363. Remark 15. THIS Gentleman adds,
 " And *poſſibly* this learned and aſſiduous Phyſi-
 " cian may have made ſome uſeful Improve-
 " ments himſelf, which his Candour will in-
 " duce him to communicate in his Lectures.
 " He is too modeſt indeed directly to aver his
 " Poſſeſſion of any peculiar *Arcana*; but the
 " general Manner of his Writing, and his Mot-
 " to from the Prophet *Daniel*, would diſpoſe
 " us to hope it," p. 507, 508.

§. 364. Reply 1. WHETHER I have been
 enabled

enabled to make any useful Improvements in the Practice of Physick, I must leave to the Judgment of those, who have, and who shall candidly read, and impartially consider the Books I have published: But may it not be added, that if the Account of the Causes of Diseases, and of the proper Means for curing them, have not been published by any of the ancient or modern medical Writers, in so natural, clear, and concise a manner, as in the former Part of this Work; if general *Principles* to be regarded in the Practice of Physick, if general *Cautions* to be observed in the Administration of the evacuating Remedies have not been delivered at all in the Writings of any Author before; or not delivered in so methodical, clear, and concise an Order, as in the foregoing Papers; then surely those few Sheets contain some important Improvements in the medical Art.

§. 365. If my Accounts of Fevers, and of my finding by diligent Researches, that some of them are produced by *inspissating*, and others by *dissolvent* Causes singly; and some by those Causes acting in Combination, are true: If my explaining how it may be known which of the assigned Causes produce this or that Sort of Fever, be of a real Use to medical Advisers, and if my shewing Medicines, and Methods of Management proper and effectual for curing these acute Diseases, and without *Bleeding*, and without *Purging* Persons, who have no Excess in their Fluids.

§. 366. AND if my Accounts of the natural Effects of the several artificial Evacuations are
right

right and clear, and may be of Advantage to those, who must determine when they ought, and when they ought not to be advised. If these Things (§. 365, 366, &c.) are so, then my two Volumes on Fevers contain some useful Improvements in the Practice of Physick.

§. 367. AND if my Account of the several Symptoms of the *Small-Pox*, as to their Production and Signification, be true, and if I have shewed effectual Medicines for removing them, and recovering the Patients to Health; Medicines established by Reason, and supported by Experience, and likewise effectual without Bleeding; then my Treatise on that Distemper does likewise contain some Improvements in the medical Art.

§. 368. AND as to *painful Distempers*, if my shewing that the common Opinion of the Cause of Pains is a groundless Notion; and that the Causes assigned by me are the real Sources of them; and if I have shewed Ways of Management, and Remedies for curing the several Kinds of *painful Diseases*, not to be found in any Book before printed; Remedies rational and effectual, without Opiates, and without Bleeding; then my Treatise on those Distempers does also contain some Improvement in the healing Art.

§. 369. I have mentioned these Things (§. 364, &c.) to shew that some useful Improvements are contained in the medical Books I have been enabled to write, and with no small Zeal for the good of Mankind.

§. 370. Reply 2. WHAT I have published, will,

will, I hope, convince every unprejudiced Person, that I have shewed a Disposition for making publick, so far as I have had Opportunity, every thing within the Compass of my Knowledge and Experience, that may be useful to others.

§. 371. Reply 3. THAT in my Lectures I do indeed very particularly treat on the *Signs* and *Symptoms* mentioned in this Ninth Section, and endeavour to communicate to those who hear me, all that Knowledge, which I have represented as of great Importance to those who will act as Physicians; and do acquaint them with my Notions of each Sort of Distempers; and without Reserve give them an Account of my Methods of managing the Sick, and of the Medicines I prescribe for them, and conceal no Remedies, as *Arcana*, which I use in my Practice.

§. 372. Reply 4. THE Notice taken of my *Motto* from *Dan.* xi. 28. and of the general Manner of my Writing, oblige me to observe, that as those Words of *Daniel*, viz. *There is a God in Heaven, that revealeth Secrets*, is a true Proposition, a Proposition whose Verity the Divine Providence is continually displaying; so it is a suitable Motto for every Man to prefix to any Book he may be enabled to write, containing any Matters, useful, and not known before.

§. 373. THE Things which are now known in the several Sorts of Science in *Astronomy*, in *Anatomy*, in *Natural Philosophy*, in *Mechanics*, and in the *Medical Art*, once were Secrets, Secrets

crets as much as Events long future, till the Knowledge of them was obtained.

§. 374. AND it appears to me very reasonable to think, that it is God, infinite in Knowledge and Wisdom, who has revealed, that is, made known every Thing that has been discovered.

§. 375. To some Persons, God makes Things known by immediate Revelation, or *Narrative*: Thus he made known to *Daniel* the Dream of *Nebuchadnezzar*.

§. 376. GOD communicates Knowledge unto others, while in the Use of proper Means for obtaining it, by bringing their Minds, through his Influence, into those Ways of Thinking, and Reasoning, in which they not only get the Knowledge they seek after, but often discover Things they never thought of, or knew before.

§. 377. AND, as I apprehend, God sometimes suggests, or imprints on the Minds of Men Thoughts, which lead them to useful Discoveries.

§. 378. THOUGHTS of this Kind, I take those to be, which come into the Minds of Men without any Connection with antecedent Ideas, or Things known before: Thoughts very beneficial, which they did not, and could not deduce from any thing previously known, and which did arise in their Minds they knew not how; these suddenly occurring Thoughts surely ought to be ascribed unto God, as the Author of them; because he only is the Fountain of Knowledge.

§. 379. THE different *Genius* observable in different Men; in some for this Sort of Science,
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and in others for that, is communicated by the Almighty, who forms and manages every Creature according to his own Will, and endows them with different Capacities, as seems good to himself; and all the Improvements they make of them are owing to him, to his Influence and Blessing; and therefore grateful Acknowledgments are due to him, on the account of them.

§. 380. AND if my Manner of Writing, and the Choice of my Motto, shall induce any to think that I have proceeded in my Studies with an Application to, and a Dependance on God for Direction, Assistance, and Success, in them; and that I apprehend God has enabled me to make some valuable Improvements in the medical Science, they are not mistaken.

§. 381. IT is certainly becoming a Man to pursue his Researches after useful Knowledge in such a Manner; and I hope there needs no Apology for my having done so, at least not in a Country where the People believe there is a God, and that he is the Giver of Knowledge and Wisdom.

§. 382. Reply 5. THE Passage last cited (§. 363.) manifestly has some Appearance of an unkind Reflection; for it begins thus: *viz.* “*And POSSIBLY this learned and assiduous Physician* may have made some useful Improvements himself, which his Candour will induce him to communicate in his Lectures.”

§. 383. THE natural Interpretation of these Words seems to be this, *viz.* that it is not probable, tho’ possible, that this Physician may have made some useful Improvements himself, which

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does

does not appear from any Thing he has published; but if he has made any, his Candour will induce him to communicate them in his Lectures.

§. 384. THE other Part of the Passage is this, *viz.* “*He is too modest indeed, directly to aver his Possession of any peculiar Arcana, but the general Manner of his Writing, and his Motto from the Prophet Daniel, would dispose us to hope it :*” That is, to hope he has the Possession of some peculiar *Arcana*.

§. 385. IN Reply, I may observe, that a Manner of Writing, which signifies a serious Regard to the great and good God, and a humble Dependence on his Teaching, and a Disposition of Mind to make suitable Acknowledgments of his Favours, may encourage Readers to hope that there is something useful in such an Author’s Books, tho’ not to conclude he has in his Possession any peculiar *Arcana*.

§. 386. *It seems to me, that impartial Persons will think those Passages (§. 363.) might better have been omitted.*

SECTION X.

Of a Method for studying Physick.

§. 387. **T**HAT Gentleman’s Account of this Section is very right, and without an Objection to any thing contained in it.

SECTION XI.

Considerations for medical Advisers.

§. 388. **H**IS Remark on this Section is just, and deserves to be seriously considered.

§. 389. **T**HIS Gentleman, after he had with Candour examined the several Sections of my Book, observes, that my Style is generally *grave, plain, and perspicuous.*

§. 390. **T**HESE Sentiments gave me a particular Pleasure, as it was a Manner of Writing I studiously endeavoured, that what I should offer to the Consideration of my Readers might be better understood.

§. 391. He very justly thinks, that in some Places my Expressions might have been more elegant; but as I have no Leisure, and it may be, no Genius for such a Way of Writing, I hope to be excused; since the Things I have published have been, and are like to be long useful to Mankind.

§. 392. I believe, that a sincere Philanthropy prevailed with this Gentleman to publish his Remarks; and hope that every medical Person who shall read them and these Papers, will impartially consider both.

§. 393. Now, after a careful Consideration of the foregoing Remarks, it still appears to me, that my medical *Principles* and *Cautions* are true, which I shall recite together in their Order.

112 *The Medical Principles considered. Part II.*

THE MEDICAL PRINCIPLES.

§. 394. 1. Principle. *THAT when the Quantity of the Blood is too great, so much Blood should be taken from the Patient as may reduce it to the Standard of Health.*

§. 395. 2. Principle. *That when the Lymph exceeds in Quantity, it ought to be diminished by proper Evacuation.*

§. 396. 3. Principle. *That in Diseases, which arise from an Excess in the Quantity of the nervous Fluid, those Remedies should be advised, which may render it less.*

§. 397. 4. Principle. *That when the Quantity of the Blood is not greater than it ought to be, the taking Blood from the Patient should not be advised.*

§. 398. 5. Principle. *That in Diseases, when the Quantity of the Lymph does not exceed the Standard of Health, or is not greater than it ought to be, Evacuations by Vomiting, or Purging, or Sweating ought not to be made.*

§. 399. 6. Principle. *That for the Cure of Diseases produced only by a wrong, or morbid Quality of the Blood, and other Fluids of the Body, Medicines, by which the morbid Quality may be altered and removed, should only be advised.*

§. 400. 7. Principle. *That in Diseases, which arise from, and depend on some Deficiency in the Body, those Remedies should be advised, which may contribute to supply the Deficiency.*

THE MEDICAL CAUTIONS.

I. *As to Blood-letting.*

§. 401. 1. Caution. *NOT to order Blood to be taken from the Sick, when the Revulsion produced by this Evacuation may occasion a Return of morbid Humours, or Particles into the Blood.*

§. 402. 2. Caution. *Not to bleed Persons, whose Fibres, and Vessels are lax, and their Flesh loose and flabby.*

§. 403. 3. Caution. *Not to take Blood from fat People without some very urgent Necessity.*

§. 404. 4. Caution. *Not to take away Blood from Patients who find their Strength less than usual.*

§. 405. 5. Caution. *Not to order Blood to be taken away a second Time, when in Consequence of the first Bleeding the Pulse becomes weaker than in Time of Health.*

§. 406. 6. Caution. *Not to order Blood to be taken away a second Time, when in Consequence of the first bleeding, the Pulse becomes quicker than in Time of Health, or quicker than it was before Blood was drawn.*

§. 407. 7. Caution. *Not to prescribe Bleeding a second Time, when in Consequence of the first Bleeding the Body becomes too cool; that is, cooler than in the Time of Health.*

§. 408.

Part II. *The Medical Cautions considered.* 113

§. 408. 8. Caution. *Not to order Persons to be bled, whose Blood is watery; that is, has too great Quantity of Serum, or of the watery Liquid, and too small a Proportion of red Globules; as in Persons under Dropsies, and in leucophlegmatic Habits of Body.*

§. 409. 9. Caution. *Not to take Blood from Persons that are habitually chilly, or too cool.*

AS TO VOMITING.

§. 410. 1. Caution. *Not to order Vomiting Medicines for plethoric Persons, whose Quantity of Blood and Lymph is too great.*

§. 411. 2. Caution. *Not to advise vomiting Medicines, either in eruptive Fevers, or cutaneous Diseases.*

§. 412. 3. Caution. *Not to give vomiting Medicines to weak Bodies, that have been long afflicted with Obstructions.*

§. 413. 4. Caution. *Not to prescribe Vomits in Diseases, whether acute, or chronical, produced by, and depending merely on some morbid Quality of the animal Fluids.*

AS TO PURGING.

§. 414. 1. Caution. *Not to advise a purging Medicine in any Distemper, whether acute, or chronical, wherein a Revulsion from the exterior Superficies of the Body may produce a Return of morbid Particles from it into the Blood: Therefore not to advise it in contagious Diseases; nor in eruptive Fevers, while the Eruption subsists; nor in cutaneous Distempers.*

§. 415. 2. Caution. *Not to prescribe a Purge in any Disease, under which the Blood is too spissid; that is, has too small a Proportion of Serum, or has a viscid, or glutinous Quality.*

§. 416. 3. Caution. *Not to prescribe purging Medicines in the Beginning of Fevers, or before their Declination.*

Of increasing the Quantity of URINE.

§. 417. 1. Caution. *Not to endeavour increasing the Quantity of the Urine, while the morbid Humours are critically excreting through the cuticular Vents.*

§. 418. 2. Caution. *Not to prescribe Diuretics, when the Blood is too thick, except such as will thin the Blood.*

§. 419. 3. Caution. *Not to endeavour augmenting the Quantity of the Urine, when the Quantity of the Lymph is not too great; and much less when it is too little.*

OF SWEATING.

§. 420. 1. Caution. *Not to prescribe Medicines for procuring Sweat, when the Quantity of the Lymph is not too great.*

§. 421. 2. Caution. *Not to promote Sweating when the Blood and Lymph are either spissid, or viscid.*

§. 422.

OF BLISTERING.

§. 422. 1. Caution. *Not to direct the Application of Blisters for Persons of a sanguine Constitution, whose muscular Fibres, and animal Vessels are rigid.*

§. 423. 2. Caution. *Not to advise Blistering in ardent, or continual inflammatory Fevers, when the Pulse is too quick and strong, and the Heat of the Body is excessive.*

§. 424. 3. Caution. *Not to prescribe the Application of Blisters to a Woman, when she has her Menstrues flowing.*

Here I may observe a few Things, viz.

1. *That my seven medical Principles are allowed to be so many necessary Deductions from what I delivered in my third Section [See Monthly Review, 501.] and that no Objection is made to any of them.*

2. *That as to my nine general Cautions with regard to Bleeding, it is allowed, that most of them are judicious, and agreeable to Experience [ibid] and the Objections to some of them are considered, §. 231, &c.*

3. *That as to my four general Cautions about prescribing vomiting Medicines, there is no Objection either to the third or fourth; and the Remarks on the first and second, are considered, §. 269, &c.*

4. *As to my three Cautions about Purgings, I may observe that no Objection is made to the first of them; and that the Remark on the second and third are taken Notice of, §. 282, &c.*

5. *That my Cautions about increasing the Quantity of the Urine and promoting Sweat, seem to be admitted without Objection.*

6. *As to my three Cautions about the Application of Blisters, this Gentleman acknowledges that the first and second seem very just, and not to have been always sufficiently attended to in Practice; and the third, he says, appears equally rational. I will only add, that his Remarks about Mr. Bellinger are considered, §. 296, &c.*

§. 425. THESE medical Principles and Cautions recited, still appear to me not only grounded on solid Reason, but to be of such Importance, that those medical Advisers, who act contrary to them, do more or less injure their Patients: And from what has been said in the foregoing Sections of this Second Part, I hope it will appear to the Satisfaction of that ingenious Gentleman, who took the Pains to write Remarks upon them, and likewise to the Satisfaction

faction of every medical Peruser of these Papers, that none of them are mistaken Rules of Practice.

§. 426. THAT great Numbers of Persons, who act as Physicians, have been ignorant of them, and have often, in their Way of Practice, acted contrary to them, I think, will be readily acknowledged; and may I not add, that they ought to be acquainted with them, and regulate the Advices they give for the Cure of Diseases in a Manner consistent with them?

§. 427. THE frequent pernicious Consequences of ordering Evacuations to be made in Persons, who have no more Fluids than a State of Health requires; and in Diseases which want other Sorts of Remedies for their Cure, will, I hope, excite every Physician, as he shall have Opportunity, to endeavour preventing an *indiscriminate* Use of them.

§. 228. I have sometimes mentioned a *Revulsion*, as a natural constant Effect of some forced Evacuations; which in various Diseases occasions a Return of *morbific Particles* into the Blood. And therefore that this Point may be better understood, I shall briefly describe the Revulsion made by the chief evacuating Remedies: particularly,

§. 429. I. THAT the Revulsion made by taking Blood from Persons, whose Quantity of it is not more than a State of Health requires; and especially, if it is too little, drains back into the Blood from all the lymphatic Veins, into the sanguine, all Sorts of Particles minute enough to pass through them into the Blood. See my First Vol. on Fevers, Chap. xiii.

§. 430. AND, on this account, the Evacuation by *Blood-letting* should not be advised for Patients, who have no Excess in the Quantity of the vital Fluid; especially, when, by the Action of the vital Organs, the morbid Particles, excreted from the Blood, and diffused in the Lymph, are passing either to some cutaneous Eruptions, or critical Tumour, or Sweat.

§. 431. II. THAT the Revulsion made by *Vomiting* Medicines (producing violent Motions, not only of the Stomach, but likewise of most Parts of the Body) draws into the Blood from the lymphatic Veins the Lymph, and any morbid Particles diffused in it; and thereby accelerates the Motion of that Fluid from the lymphatic Arteries into the lymphatic Veins; and so may be said to produce a strong general Revulsion, and abate the Excretion of Humours to any Tumour or cutaneous Eruption. See *ibid.* Chap. xiv.

§. 432. THE evident subsiding, (at least in a very sensible Degree,) of any red Pustules on the Face by the Operation of Vomiting, is a Confirmation of this Account; and obliges us to apprehend that the like Return of Humours into the Blood, is produced in the other Parts of the Body.

§. 433. III. THAT the Revulsion made by *Purging*, or forcing an Increase of the Number of the Stools, occasions a Return of Humours from the external Superficies of the Body, thro' the lymphatic into the sanguine Veins. *Ibid.* Chap. xv.

§. 434. IV. THAT the Revulsion made for
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Part II. *The Medical Principles and Cautions.* 117

forcing an Increase of the Quantity of the Urine occasions a Return of Particles minute enough to pass from the lymphatic Veins situated in the exterior Superficies of the Body ; and thereby may take off a Sweat, and lessen the Excretion by insensible Perspiration. Vid. *ibid.* Chap. xix.

§. 435. V. THAT the Revulsion made by sweating Persons, occasions a Return of Humours, or Particles minute enough to pass thro' the Lymphatic Veins of the interior Superficies, and other internal Parts of the Body, into the sanguine Veins, and thus may cure a *Diarrhea*. Vid. *ibid.* Chap. xvi.

§. 436. VI. THAT the Revulsion produced by the Application of Blistering Plaisters, occasions a Return of Particles into the Blood from the lymphatic Veins, which carry their Fluid into these distant sanguine Veins, where the Motion of the Blood is quickened to supply the Vessels near the blistered Parts.

§. 437. A due Consideration of these Things (§. 428. to §. 436.) will help medical Advisers to avoid many unhappy Mistakes, and rightly to advise, and forbid the artificial Evacuations.

§. 438. THE common Error in Practice, and an ERROR it is very abundant in pernicious Consequences to many People under Diseases : I mean the *indiscriminate* Use of the artificial Evacuations ; because in such a Method of Practice it very often happens that Blood is taken not only from those who have too much, but also from Persons, who have no more than a State of Health requires, and likewise from those who have much too little Blood : The na-

tural Consequence of which will be the sinking such Patients into some other Distemper, which follows a Deficiency in the Quantity of the Blood, or, at least, the rendering their Recovery slower than otherwise it would be.

§. 439. AND in like manner, by an indiscriminate Use of Purging, it will often happen, that the Quantity of the Lymph will be made less than is consistent with a State of Health. This will be the Effect, when this Evacuation is ordered for Patients, who have no more Lymph than a State of Health requires; and worse will be the Effects in those, who have too little; besides the ill Consequence of making a Revulsion from the exterior Superficies of the Body, when in eruptive Diseases morbid Particles will thereby be drained from it into the Current of the Blood.

§. 440. AND it surely deserves to be remembered, and considered, that in Patients, where the Quantity of the animal Fluids is not greater than a State of Health requires, more especially if it be less, the Evacuations by *Bleeding* and by *Purging* will then diminish their vital Strength in proportion to the Diminution made by these needless, and improper Evacuations: And will certainly render the Recovery of their Strength, and Health, more slow, and more doubtful.

§. 441. BUT such Patients (§. 440) may choose whether they will be treated with those customary Evacuations, and run the Risk of being thrown into a lingering, and tedious Way of Recovery; and, it may be, instead of regaining their Health, be sunk into some other unthought-
of

of Distemper, or prefer Medicines, in the Use of which they may regain their Strength and Health in a shorter Time, with less Hazard, and with more Comfort.

§. 442. THE Practice, which I object to, is the taking Blood from Persons, whose Quantity of it is not more than a State of Health requires.

§. 443. THE Arguments used for Bleeding by the ancient Medical Writers, and by modern Authors, I have distinctly considered in my Treatise on the Small-Pox. Vid. Edit. II. Chap. X.

§. 444. THE chief of them are the following, viz. Arg. I. That taking away Blood will *diminish the morbid Matter*. This is mentioned as a Reason for Bleeding, by AVICENNA^d, in what he writes on the *Small-Pox*: For he not only advises it in the Beginning of that Distemper, if there is too great a Quantity of Blood, but allows it in the Progress of the Disease, if the *morbid Humours* are very abundant; which seems to imply, that a Diminution of the Quantity of the morbid Humours, by means of this Evacuation, was his Reason.

§. 445. MESUE^e represents the Method of Cure in the Small-Pox, as consisting partly in the *Abscission* of the Cause (by which I apprehend he means the diminishing the *variolous Matter*) by *Phlebotomy*.

§. 446. DIOMEDES AMICUS^f gives us his Opinion, that when the variolous Humour is so

^d Avicen. Oper. tom. ii. p. 74. col. 2.

^e Mesue Oper. de Febr. putrid, p. 175.

^f Tract. Diomedis Amici, f. 15. p. 2.

120 *The Medical Principles and Cautions. Part II.*

abundant, that it cannot probably be entirely discharged into the Pustules, it is not safe to endeavour promoting the Excretion through the cutaneous Vents, unless the Quantity of variolous Matter be first *lessen'd* by Bleeding, or some purging Medicine.

§. 447. PASCHAL^s in his *Praxis Medicinæ de Febris*, treating on the *Small-Pox*, observes, that the Malignity, and abundance of it, (I suppose he means, of the variolous Matter) shews the Want of Evacuation; which Intension, he apprehended, might be obtained by Bleeding.

§. 448. AND various other Authors are for this Evacuation, on the account that it diminishes the Quantity of the variolous Matter; without considering the Diminution, which it makes of the vital Strength of the Patient; or the very little, and, I may say, insignificant Part of variolous Particles, which can be let out of the Body by opening a Vein, since they are diffused in all the Fluids and Solids of the Body, and do continually multiply to the Declination of the Distemper. But this Argument is fully considered in my *Treatise on the Small-Pox*, Edit. 2. Part I. §. 627.

§. 449. Arg. 2. THE Subsistence of certain morbid Symptoms has been pleaded as an Argument for Bleeding; particularly the following, *viz.* 1. Delirium or Light-headedness. This BAGLIVI^h mentions as an Occasion for Bleeding.

^s P. Paschal. Append. Curationi Variolarum inservient.
p. 124, 125.

^h Bagl. Oper. Med. p. 61.

Part II. *The Medical Principles and Cautions.* 121

2. A Difficulty of Breathing. This is given as a Reason by MAYERN¹.

3. Pains violent and convulsive, in Dr. MORTON's^k Opinion, required Blood-letting.

§. 450. Dr. FREIND^l in his *Comment. de Febribus*, as Reasons for taking Blood from the Sick assigns the following Particulars, viz. 1. A vehement Fever. 2. Heaviness, and Pain of the Loins. 3. *Delirium*. 4. Redness of the Face. 5. Deafness. 6. Watchings. 7. Restlessness. 8. Convulsions. 9. *Coma*. 10. Heaviness, and Pain of the Head.

§. 451. Dr. CADE^m uses the like Arguments; but all these, (§. 441, &c.) with others, have been considered, and shewn to be insufficient to justify the taking Blood from Persons, who have no greater Quantity of it than a State of Health requires; and much less can excuse it, as to Persons who have too little Blood. Vid. the 2d Edit. of my Treatise on the Small-Pox, Chap. x.

§. 452. I hope my Sentiments will be remembered, which I have several Times expressly declared, viz. that a Physician should advise Blood to be taken from his Patient, when the Quantity of it is too great, and prescribe *Purg- ing*, or some other *Evacuation*, when the lymphatic Fluid is too abundant.

§. 453. THE Use of evacuating Remedies for the Cure of Diseases, when there is an Excess in the Quantity of the animal Fluids is directed by my

¹ Mayern. *Praxeos*, Vol. I. p. 439.

^k Vid. Moreton. ΠΥΡΕΤΟΛ, p. 156, &c.

^l Dr. Friend. *Comment. de Febr.* p. 14, 15.

^m Dr. Cade's Epist. to Dr. Freind.

122 *The Medical Principles and Cautions.* Part II.
Principles, and is certainly a rational Way of
Practice.

§. 454. AND it is only the *indiscriminate* Use
of them, &c. against which my Cautions are
intended; that is, the ordering Blood to be
drawn from sick People, who have too little,
or no more than is necessary to their Health;
and the prescribing purgative, or other evacuat-
ing Medicines, when there is no Occasion for it.

§. 455. IT will be very happy for sick
People, if all, who act as Physicians, will ex-
amine the Grounds and Reasons of the Medical
Principles, and Cautions, recommended in these
Papers, and shall be convinced of their Truth,
and Importance, and accordingly regulate the
Advices they shall give to their Patients.

*Blessed be the Name of GOD for ever and
ever; for Wisdom, and Might are His,
Dan. ii. 20.*

F I N I S.



E R R A T A.

Page 69. l. 4. r. Laxity; p. 81. l. 28. r. sanguify; p. 97. l. 22.
r. smelling; p. 100. §. 347. l. 2. for any r. my; p. 104. §. 362.
l. 8. for nor r. and; p. 113. §. 410. l. 1. r. Vomiting.